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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,890	03/29/2004	Steffen Peters	32368-202406	1110

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EXAMINER

NATALINI, JEFF WILLIAM

ART UNIT PAPER NUMBER

2858

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

**Office Action Summary**

Application No.

10/810,890

Applicant(s)

PETERS ET AL.

Examiner

Jeff Natalini

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/3/04</u> . | 6) <input type="checkbox"/> Other: ____  |

### ***Information Disclosure Statement***

1. The information disclosure statement filed December 3, 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language (Patents EP-1331476, EP-0753755, and EP-0582045 have not been considered since they are not in English). It has been placed in the application file, but the information referred to therein has not been considered. Note EP-1331476 is filed by the same inventors and is published after the foreign priority given in the instant application so it would not be useable for a prior art rejection.

### ***Drawings***

2. The drawings are objected to because the new corrected drawing sheets change in fig 5 what was 36 (in the previous drawings) to 6 (in the new drawings), this minor correction should be changed so the number pointers in the figures properly correspond to the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered

and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 10, 11, 12, and 14 are objected to because of the following informalities:
- In regard to claim 10, on line 10 (of pg 17 of application) the resonator is described as a "substantially completely shielded cavity resonator", the wording "substantially completely" is unclear, it seems either substantially or completely should be used in the description.
  - In regard to claim 11, on line 21 (of pg 17 or application), "a said processing element" is stated, "a" should be deleted since there is antecedent basis for the processing element and this is referring back to that processing element so there is no need for "a". This same thing happens with the processing element in claim 12 line 29, and with the measuring device in claim 14 line 37.
  - For clarity sake it would be better if all reference back to items used either "said" or "the" throughout the claims. Throughout the claims, the wording

switches between using "the" and "said" in different claims, for example claim 13 compared with claim 14.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 4, 7, and 9-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Herrmann et al. (6837122).

In regard to claims 1, 11, and 18, Herrmann et al. discloses fibrous material processing machine having at least one fibre processing element (fig 2 (13) or fig 1 (5) col 4 line 11-14; fibers are processed in a funnel or card respectively) and controls the density of the fiber material (col 2 line 30-32) and further comprising a measuring device for monitoring a material (col 1 line 7-12), the measurement device having a first microwave resonator (abstract (number 15) in all figures) and a compensating device for compensating for environmental influences on said first microwave resonator (fig 1 (18); col 4 line 50-59), said compensating device comprising a second microwave resonator which is shielded from the product are in respect of microwave radiation (fig 1

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(18) shielded from the product on line 4 as it does not run through the resonator; moisture is effected by environmental influence since it could increase/decrease based on the present humidity or other factors), said measuring device being positioned at a measuring location (measuring locations are the placement of resonator (15) in figs 1 and 2) and a said processing element of said machine being adjustable in dependence on measurement values obtained at said measurement location (the speed of the rollers taking the fibers to be processed is adjusted based on the measurement; col 4 line 27-30).

In regard to claim 3, Herrmann et al. discloses wherein the density of the product is determined (col 1 line 11-12).

In regard to claim 4, Herrmann et al. discloses wherein the product area is a channel for receiving a traveling strand of fibrous material (col 4 line 15-30; fig 2).

In regard to claim 7, Herrmann et al. discloses wherein the first and second resonators are adjacent and separated by a space (fig 1 shows (18 and 15) near each other and also separated by space).

In regard to claim 9, Herrmann et al. discloses wherein in operation the product runs through the first resonator (fig 3; product (8) runs through resonator (15)).

In regard to claim 10, Herrmann et al. discloses wherein the first resonator is substantially completely shielded cavity resonator with an opening for the admission of the product (fig 3; col 4 line 39-42).

In regard to claim 12, Herrmann et al. discloses where the machine processes textile fiber material (col 2 line 40-45) and wherein the device is arranged to measure

the density of the fiber sliver and is able to influence the properties of the sliver (col 2 line 30-32).

In regard to claim 13, Herrmann et al. discloses where the machine is a carding machine, and the measurement device is arranged near a delivery output of the carding machine (col 3 line 27-30).

In regard to claim 14, Herrmann et al. discloses where the machine is a draw frame, and said measurement device being arranged near a delivery outlet of the draw frame (col 3 line 31-39).

In regard to claim 15, Herrmann et al. discloses where the machine is a draw frame, said draw frame comprising a first said measuring device in an inlet region and a second said measuring device in an outlet region (col 3 line 31-39).

In regard to 16, Herrmann et al. discloses a machine control and regulation device (fig 2 (16); col 4 line 27-30) to which each measurement device is connected (seen in figure 2).

In regard to claim 17, Herrmann et al. discloses an actuation device (fig 2 rollers 9, 10, and 11) for a processing element (fig 2 (13)), the actuation device being controllable by the control and regulation device in dependence on measurement data received by the first measurement device (col 4 line 27-30).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann et al. (6837122).

In regard to claim 5, Herrmann et al. does not specifically state that the first resonator and the second resonator are of substantially the same construction.

By looking at figure 1, the second resonator (18) seems to have very similar length of the first resonator (15), also it would be obvious to one skilled in the art to make the resonators out of the same material as they are for the same purpose of determining a parameter using microwaves.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to make the first and second resonator of the substantially the same construction in order to have proper continuity in measurements for accuracy and calibration.

In regard to claim 8, Herrmann et al. does not specifically state that the first and second resonator form a modular unit.

MPEP 21443.04 V B *In re Larson*, 340 F.2d 965, 968 144 USPQ 347 349 (CCPA 1965) states that making objects integral does not patentably distinguish it from the prior art.

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Herrmann et al. to combine the first and second resonators to



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be able to measure the moisture and the appropriate density very close together before the product can absorb more moisture to increase accuracy.

8. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann et al. (6837122) in view of Moshe et al. (6476619).

Herrmann et al. lacks wherein the compensation device compensates for temperature variation.

Moshe et al. teaches compensating for temperature variations of the fiber (col 15 line 14-30)

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Herrmann et al. to compensate for variations in the sliver temperature as taught by Moshe et al. in order to compensate and correct initial average and standard deviation values of density (col 15 line 25-27).

9. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann et al. (6837122) in view of Herrmann (5977780).

Herrmann et al. lacks wherein the resonators are at least partially filled with a dielectric.

Herrmann teaches filling a resonator with a dielectric (col 2 line 23-24).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Herrmann et al. to fill both the first and second resonators with a

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dielectric as taught by Herrmann in order to have a highly homogeneous microwave field in the measurement range.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Moller et al. (6747460) teaches microwave resonator measuring device here dielectric properties of products to be measured exert a high influence on the resonator behavior and lead to an effective detection of foreign substance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Natalini whose telephone number is 571-272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeff Natalini



**ANJAN DEB  
PRIMARY EXAMINER**